



## PATENT ABSTRACTS OF JAPAN

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for cutting-off the optical output in the repeater station.

**(57) Abstract:**

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**PROBLEM TO BE SOLVED:** To provide a system which is the optical output cutoff system cutting- off output light for securing safety when disconnection, etc., arises in an optical cable and also the system suitable for long distance optical transmission with a repeater station.

**SOLUTION:** It is detected that the optical signal from an opposite station is disconnected owing to the disconnection of the optical cable, etc., by a monitor control circuit 18. When input disconnection is detected, the optical signal obtained by executing the wave length multiplexing of an alarm optical signal 20 with prescribed wave length to a main signal by a wave length multiplexing coupler is returned to the opposite station where the input is disconnected. The opposite station picks-up the alarm optical signal 20 by wave length separation and the optical output of the alarm optical signal of an optical amplifier 16(17) towards the transmission station is cut-off. Since the alarm is reported by wave length multiplexing, the main signal is not required to be operated and the system is suitable

